

IN THE CLAIMS:

Amendments to the Claims

Please rewrite claims 2, 5 and 6 in independent form as follows, and please cancel claims 1, 4 and 7-9 without prejudice or disclaimer of the subject matter thereof.

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (canceled)

2. (currently amended) A disc driving apparatus ~~as defined in the claim 1,~~
comprising:

a housing of a disc drive;

a rotation mechanism disposed within said housing for rotating a disc;

an optical pickup mechanism disposed within said housing for reproducing or
reproducing/recording information on the disc; wherein

said optical pickup mechanism has an optical pickup and a driving mechanism
for driving said optical pickup in a radial direction of said disc;

said optical pickup comprises a pickup housing made of metal, in which are
mounted a laser diode emitting detection light for reproducing or recording
information on said disc, a laser driver circuit board for controlling said laser diode,
an objective lens driver for guiding the detection light emitted from to a
predetermined position on said disc and for guiding reflection light from said disc
onto an optical detector, optical parts including a lens, a prism, a mirror, and said
optical detector for detecting said detection light; and

said laser diode and said laser driver circuit board are mounted in thermal contact with said pickup housing so as to be disposed adjacent to each other, while providing a thermal separation portion for thermally separating said laser diode and said laser driver circuit board;

wherein said thermal separation portion comprises a dividing portion formed with either one of a slit portion or a recess gutter, for dividing said pickup housing, disposed between said laser diode and said laser driver circuit board, and a heat separation member disposed in said dividing portion.

3. (previously presented) A disc driving apparatus as defined in the claim 2, wherein said pickup housing is made of metal material having good thermal conductivity, and said thermal separation portion is formed by filling resin material into the separation portion of said pickup housing, thereby to form them in one body.

Claim 4 (canceled)

5. (currently amended) A disc driving apparatus ~~as defined in the claim 4,~~ comprising:

a housing of a disc drive;

a rotation mechanism disposed within said housing for rotating a disc;

an optical pickup mechanism disposed within said housing for reproducing or reproducing/recording information on the disc; wherein

said optical pickup mechanism has an optical pickup and a driving mechanism for driving said optical pickup in a radial direction of said disc;

said optical pickup comprises a pickup housing made of metal, in which are mounted a laser diode for emitting detection light for use with a CD, so as to reproduce or record information on said disc, a laser diode for emitting a detection

light for use with a DVD, so as to reproduce or record information on said disc, a laser driver circuit board for controlling said laser diode for use with a CD, an objective lens driver for guiding the detection light emitted from to a predetermined position on said disc and for guiding reflection light from said disc onto an optical detector, optical parts including a lens, a prism, a mirror, and said optical detector for detecting said detection light; and

said laser diode for use with a CD, said laser diode for use with a DVD, said laser driver circuit board and said objective lens driver are mounted in thermal contact with said pickup housing, wherein said laser diode for use with a CD and said laser driver circuit board are disposed adjacent to each other, and a thermal separation portion is provided for thermally separating an area occupied by said laser diodes for use with a CD and DVD and an area occupied by said laser driver circuit board and said objective lens driver within said pickup housing;

wherein the prism and the mirror of said optical portions and said optical detector are disposed nearer to said laser diodes for use with a CD and DVD than to said thermal separation portion.

6. (currently amended) A disc driving apparatus ~~as defined in the claim 4,~~ comprising:

a housing of a disc drive;

a rotation mechanism disposed within said housing for rotating a disc;

an optical pickup mechanism disposed within said housing for reproducing or reproducing/recording information on the disc; wherein

said optical pickup mechanism has an optical pickup and a driving mechanism for driving said optical pickup in a radial direction of said disc;

said optical pickup comprises a pickup housing made of metal, in which are mounted a laser diode for emitting detection light for use with a CD, so as to

reproduce or record information on said disc, a laser diode for emitting a detection light for use with a DVD, so as to reproduce or record information on said disc, a laser driver circuit board for controlling said laser diode for use with a CD, an objective lens driver for guiding the detection light emitted from to a predetermined position on said disc and for guiding reflection light from said disc onto an optical detector, optical parts including a lens, a prism, a mirror, and said optical detector for detecting said detection light; and

said laser diode for use with a CD, said laser diode for use with a DVD, said laser driver circuit board and said objective lens driver are mounted in thermal contact with said pickup housing, wherein said laser diode for use with a CD and said laser driver circuit board are disposed adjacent to each other, and a thermal separation portion is provided for thermally separating an area occupied by said laser diodes for use with a CD and DVD and an area occupied by said laser driver circuit board and said objective lens driver within said pickup housing;

wherein said thermal separation portion is provided so as to thermally separate either one of between said laser diode for use of the CD and said laser diode for use of the DVD, and between said laser driver circuit board and said objective lens driver.

Claims 7-9 (canceled)